



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

DEVAL L. PATRICK  
Governor

MAEVE VALLELY BARTLETT  
Secretary

DAVID W. CASH  
Commissioner

Paul DeMaio, Chairman  
Monson Sewer and Water Department  
198 Main Street  
Monson MA 01056

October 16, 2014

Re: Monson -WWM  
Wastewater Collection System and Pump  
Station Evaluation  
DEP Project 191 - 076

Dear Mr. DeMaio,

A representative of the Department of Environmental Protection ("MassDEP") made an inspection of the Monson Wastewater Collection System on August 19, 2014. MassDEP appreciates the assistance of Mr. Craig Jalbert, Superintendent of Monson Sewer and Water Department ("Monson"), during the inspection. Enclosed please find the Compliance Inspection Report completed in conjunction with the inspection. A copy has also been sent to Mr. Jalbert for his records.

As discussed in the "Comments" section at the end of the attached report, the Monson wastewater collection system and pump station appeared well operated and maintained during the August 19, 2014 evaluation. As also included in the Comments section, Monson should familiarize itself with the recently revised Massachusetts regulations 314 CMR 12.00, which includes requirements applying to wastewater collection systems such as Monson's.

Among such regulations is the requirement for Monson to submit by December 31, 2017 to MassDEP an Infiltration /Inflow Analysis for review and approval (314 CMR 12.04 (2)). Other requirements include those requiring Monson to annually submit to MassDEP a report providing the results of all alarm tests, which such tests are to be performed at least twice per year (314 CMR 12.05 (12)), notification to MassDEP of any sanitary sewer overflow (314 CMR 12.03 (8) , among numerous other requirements.

A hard copy of 314 CMR 12.00 (revised April 2014) was provided to Mr. Jalbert during the evaluation.

If there are any questions regarding the above, please contact Kurt Boisjolie at 413-755-2284.

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TDD# 1-866-539-7622 or 1-617-574-6868  
MassDEP Website: [www.mass.gov/dep](http://www.mass.gov/dep)

Printed on Recycled Paper

Sincerely,

A handwritten signature in black ink, appearing to read "Paul J. Nietupski". The signature is fluid and cursive, with a large, stylized "P" and "N".

Paul J Nietupski  
Section Chief  
Wastewater Management Program

Enclosures: Evaluation Report, and Sketch of Monson collection system

cc: Craig Jalbert, Monson Water and Sewer Department Superintendent

w:\brp\wpc\wpcdoc\WWTP Operations\KMonsonCollectSystemEval8.14

## DEP-WERO SATELLITE WASTEWATER COLLECTION SYSTEM EVALUATION

### Monson MA Wastewater Collection System

**Town:** Monson MA **Date of Evaluation:** August 19, 2014  
**Town Contacts:** Craig Jalbert, Monson Sewer and Water Dept Superintendent  
**DEP Representative:** Kurt Boisjolie, tel # 413-755-2284

### Pertinent Massachusetts Regulation

- **314 CMR 12.00**, recently revised in April 2014, applies to collection, pumping, and transmission of wastewater as occurs in the Monson satellite wastewater collection system, and was briefly discussed with, and provided to Mr. Jalbert during the August 19, 2014 evaluation.

### Brief Description of Wastewater Collection System:

The Monson wastewater collection system connects to the Palmer wastewater collection and treatment system. FY 2013 average daily flow from Monson to Palmer was approximately 400,000 gallons per day (0.40 MG/day, equivalent to 144.9 MG/year), measured at the Monson Hospital Road wastewater Pump Station. The Hospital Road Pump Station is the only Town-owned wastewater pump station, which collects all flow from Monson and pumps all such flow to Palmer.

Two siphons in the collection system, crossing Chicopee Brook at two locations:

- Chestnut Street siphon (double barrel) and
- Route 32 (at Car Wash) (double barrel),

### Pump Station Information

Pump Station	Type/Size	Inspection Frequency	Emergency Generator	Alarms	Existing Average Flow
<b>Hospital Road Pump Station</b> Wet Well-DryWell 1 Muffin Monster in wet well, prior to pump suction lines. Sump prior to Muffin Monster manually cleaned every 2 to 3 weeks. Wet wells hosed spring and fall. Enzyme block used in wet well to avoid grease removal.	Two Pumps 800 gpm (15 HP Motor), and 1400 gpm (25 HP motor), both VFD's. Upgraded in 1997. 15 HP pump is Lead, except for one day/week, when 25 HP pump is switched to Lead. Bubbler system controls Pump operation and Alarms.	Daily Inspection Log book at PS.  2 backflow devices in PS, tested by Monson Water Dept.	Cummins Diesel Generator. Run once per month under full load for 30 to 45 min. Cummins checks Generator Every two years. A (\$200) rheostat in Generator failed in June 2014, during power outage, causing High Wet Well Alarm.	High Wet Well, Low Wet Well, Flooded Dry Well, and Power failure. Sent to 3 <sup>rd</sup> party ("Alarm Control USA") who then notifies staff. Simulated Alarm for Flooded Dry Well during Aug 19, 2014 inspection. Alarm sent to 3 <sup>rd</sup> Party who contacted Monson office and on-call staff	Approx 400,000 gpd, =145 MG/year. Meter calibrated once/yr, as per contract with Palmer. Last calibrated 7/9/14 As of May 29, 2014, the considerable Inflow/Infiltration (approx 400,000 gal/month) from Mass Dvlp Centr has been plugged

**Financial:** Enterprise Account. Sewer User fee = \$328 /year per residential EDU  
 Retained Earnings Balance or Reserve Account Balance: \$ 465,789 as of February 23, 2014

FY 2014 Monson Sewer Department Budget:

FY 2014 Monson Sewer Department Budget:

Debt: Principal and Interest	Payment to Palmer for Treatment	Salaries	Operation Costs (utilities, maintenance, equipment, etc)	Emergency Reserve	Total
\$ 0 *	\$ 350,000 **	\$ 108,399 ***	\$ 35, 257	\$ 20,000	\$ 513,656

\* Past debt retired at end of FY 2013. Retirement of past debt allows consideration at this time for possible project to upgrade Hospital Road Pump Station.

\*\* New Contract with Palmer began July 2012 and runs to June 2024 . Annual payment divided by annual flow (\$ 274,452 paid in FY 2013 /145 MG in FY 2013 ) equivalent to approximately \$ 1.43 /per 100 cubic feet of wastewater presently paid by Monson to Palmer.

\*\*\* Includes overtime for sewer work. Sewer Superintendent and staff also operate, and are paid from, Monson Water Department.

**Staffing** (which also serves as Water Department staff, paid in considerable part from sewer user fees):  
Superintendent, Assistant Superintendent, two laborers, and one clerical staff.

**Comments:**

1. Monson should familiarize itself with the recently revised Massachusetts regulations 314 CMR 12.00, which includes requirements applying to wastewater collection systems such as Monson's. Among such regulations is the requirement for Monson to submit by December 31, 2017 to MassDEP an Infiltration /Inflow Analysis for review and approval (314 CMR 12.04 (2)). Other requirements include those requiring Monson to annually submit to MassDEP a report providing the results of all alarm tests, which such tests are to be performed at least twice per year (314 CMR 12.05 (12), notification to MassDEP of any sanitary sewer overflow (314 CMR 121.03 (8) , among numerous other requirements
2. The Monson wastewater collection system and pump station (sketch attached for reference) appeared well operated and maintained during the August 19, 2014 evaluation. Known problem areas in the Monson sewer along Main Street are jetted a minimum of once /year . Considerable Inflow and Infiltration from the former Monson Developmental Center has been recently eliminated. The Hospital Road Pump Station appears well operated and maintained. The upstream and downstream siphon chambers in the two twin barrel siphons in the collection system have good access, allowing regular inspection. Of special note is the construction and maintenance of the access drive to the upstream chamber of the Route 32 siphon. The cross sewer line is cut annually to maintain access to such sewer line.
3. Copies of the Town sewer use regulation, design plans of the pump station and two siphons, and manufacturers information for the pump station were available and accessible during the inspection. The town sewer map is in the process of being converted to GIS over a period of years, as contracted annually by Monson to Tighe and Bond within the professional services in the annual Wastewater budget.

4. As part of Monson's Asset Management, the 5 year capital plan includes upgrades to the Hospital Road Pump Station, including replacement of the Pump Station Motor Control Center, installation of a transducer (with float backup) to control pump and alarm operation, refurbishing both pumps, among other items. While some items in the Pump Station were updated in 1997 (new pump motors and VFD's) much of the existing equipment dates back to the original 1980 construction of the Pump Station. Due to the age of some of the existing equipment at the Pump Station, Monson has made a decision to be proactive and consider the upgrade to the Hospital Road Pump Station during the same period that all previous loans have been retired as of FY 2014.
5. Should the Town of Monson decide to upgrade the Hospital Road Pump Station, a DEP Permit BRP WP 68 (Treatment Works Modification) may be required, which would include the submittal of an engineering report and design plans to MassDEP for review and approval. The Department should be consulted prior to initiating the project to determine if a Department Permit is required.
6. Monson has ordered a new Sewer Jet Rodder Truck (approx \$50,000) at beginning of FY 2015, expected to be delivered approximately October 2014, and will replace old jet rodder. Monson also purchased a sewer video camera (approx \$10,000) at beginning of FY 2015.



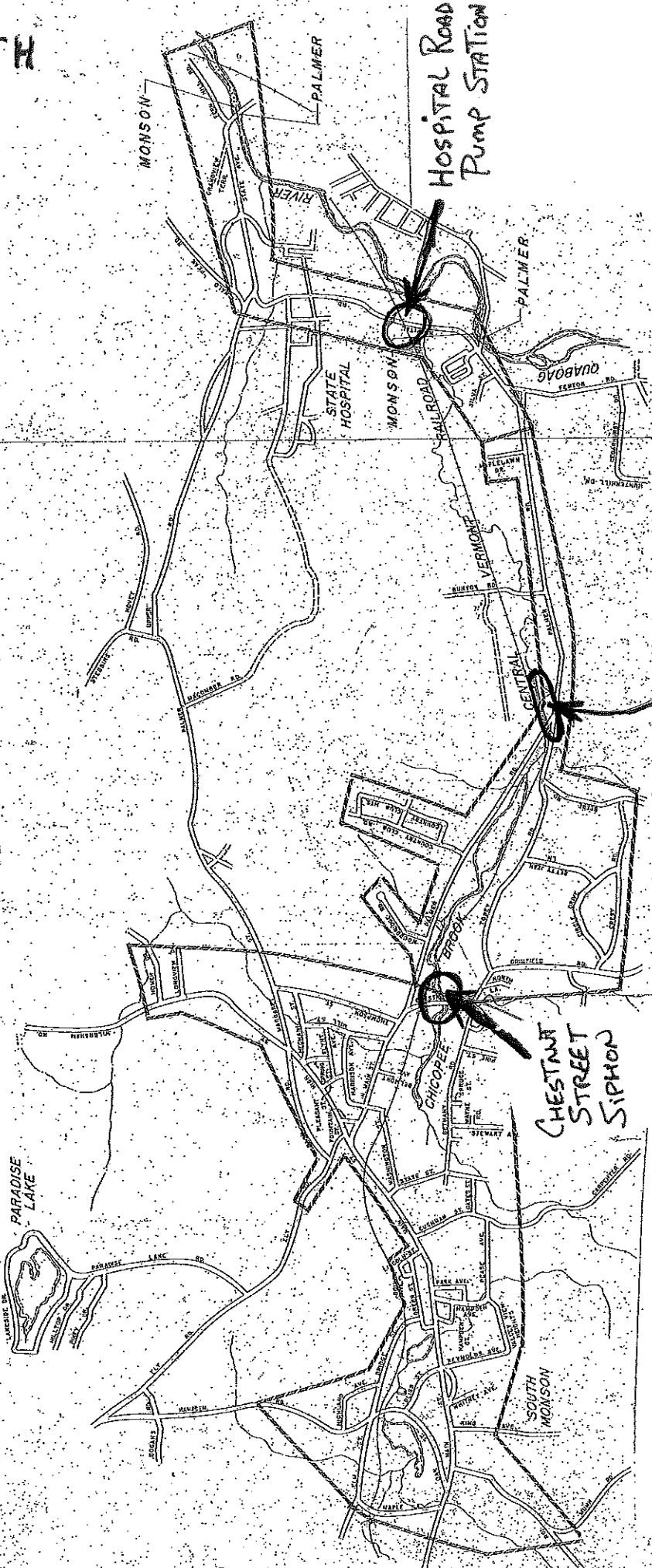
Upstream Chamber, Monson Route 32 at Car Wash Siphon  
Chamber has good access in a difficult area

DWG. K-4

DWG. K-5

DWG. K-6

NORTH



ROUTE 32  
AT CAR WASH  
SIPHON

CHESTNUT  
STREET  
SIPHON

HOSPITAL ROAD  
Pump Station

- NOTES
1. For General Notes and 12
  2. For Boring Logs see Spec.
  3. For Test Plans see Dwg. N
  4. For Schedule of Dwg. see

OVERALL KEY

TOWN OF MONSON  
SEWERAGE SYSTEM  
APPURTENANT

MORSEBOTH & ASSOC.  
CONSULTING ENGINEERS, INC.

DRAWN BY: JDE  
CHECKED BY: JDE  
DATE: 10/1/77

PROJECT: MONSON  
SHEET: 2

Monson Collection System Showing The Two Wastewater Siphons  
AND THE ONE TOWN-OWNED WASTEWATER Pump Station.

KOB 8/19/14